

SOURCE CODE: UR/0189/66/000 003/0008/001.

ACC NR: AP7012422

AUTHOR: Meshkova, G. I.; Yeremin, Ye. N.

ORG: Department of Physical Chemistry, Moscow State University (Kafedra fizicheskoy khimii Moskovskogo gosudarstvennogo universiteta)

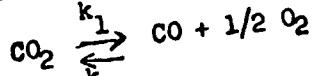
TITLE: Role of specific energy in the kinetics of reactions in electrical discharges. Kinetics of the break down of carbon dioxide

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 3, 1966, 8-13

TOPIC TAGS: glow discharge, gas dissociation

SUB CODE: 07

ABSTRACT: The kinetics of dissociation of carbon dioxide gas in a glow-discharge in a flow system were studied. For the dissociation of carbon dioxide gas



the G. M. Panchenkov equation takes on the form

$$-\frac{dn}{dV} = \bar{k}_1 C_{CO_2} - k_2 C_{CO} C_{O_2}$$

$\gamma_1 \gamma_2 \gamma_3$

$\gamma_1 \gamma_2 \gamma_3$

UDC: 541.124:537.525.546.264
0932 1360

Card 1/2

ACC NR: AP7012422

where n_0 = number of moles of CO_2 entering the beginning of the reaction zone per unit time, α = extent of dissociation of CO_2 , and V = volume of reaction zone. The extent of dissociation of carbon dioxide gas as a function of specific energy (U/V) was studied at pressures of 40 mm, 80 mm, and 160 mm Hg. The dimension of specific energy was kwh/m^3 . The kinetic treatment of experimental results was made with the equation of S. S. Vasil'yev, N. I. Kobozev, and Ye. N.

Yeremin

$$\alpha = \frac{k_0}{k'_2} [1 - \exp(-k_2 \frac{U}{V})],$$

where k_0 and k'_2 = generalized constants of the forward and backward reactions proportional to k_1 and k_2 , respectively. The overall order of the reverse reaction is conventionally taken as unity. Orig. art. has: 3 figures, 3 formulas and 2 tables. [JPRS: 40,422]

2
2

ACC NR: AP7012423

SOURCE CODE: UR/0189/66/000/003 0014/0017

AUTHOR: Meshkova, G. I.; Yeremin, Ye. N.

ORG: Department of Physical Chemistry. Moscow State University (Kafedra fizicheskoy khimii, Moskovskogo gosudarstvennogo universiteta)

TITLE: Role of specific energy in the kinetics of reactions in electrical discharges. Electrocracking of methane

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 3, 1966, 14-17

TOPIC TAGS: glow discharge, methane, chemical energy conversion, acetylene

SUB CODE: 07

ABSTRACT: The kinetics of conversion of methane in a glow-discharge are studied with the same equipment used in studying the kinetics of carbon dioxide gas dissociation in a glow-discharge. The composition of the methane cracking gas was plotted as a function of U/V (specific energy) at a current of 175 milliampères and a pressure of 40 mm Hg. The mixture components were H₂, CH₄, and C₂H₂. For other sets of experimental conditions studied, the character of the dependence was similar: at low specific energies, the acetylene concentration

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UDC: 541.124:537.525:547.211

0932 1362

ACC NR: AP7012423

rises fairly rapidly, attaining about 15-16%. At 50 milliamperes and 40 mm Hg, the discharge power was of the order of 50 watts and a pressure of 10 mm Hg and current strengths of 175 and 350 milliamperes. In the former case, practically no acetylene was found, and only small amounts of ethane and ethylene were formed. In the latter, the acetylene concentration was 1-6% at sizable U/V values. It is essential that the ethane and ethylene concentrations pass through maxima in this latter case. Orig. art. has: 5 figures, 1 formula and 2 tables.

[JPRS: 40,422]

2
2

ACCESSION NR: AP4019870

S/0181/64/006/003/0952/0954

AUTHORS: Meshkova, G. N.; Strakhov, L. P.

TITLE: The spectral distribution of light change of the contact potential in CdSe, depending on the surface state

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 952-954

TOPIC TAGS: spectral distribution, contact potential, surface condition, cathode sputtering

ABSTRACT: This paper offers further experimental data to support the treatment of spectral distribution of the light change of contact potential as discussed by L. P. Strakhov, B. G. Chernyavskiy, I. P. Kalinkin, and Z. Sh. Ovsyuk (FTT, 4, 3423, 1962). A negative minimum is associated with light change of the potential at the face and the back of a film in contact with its base. The light change at the back of this film should give the greatest change. Previous work dealt chiefly with the face of the film, because strong absorption in the spectral range employed had a large effect on the positive maximum and a small effect on the negative minimum. To test this, the authors obtained cathode-sputtered films in

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ACCESSION NR: AP4019870

residual gas or argon (pressure of about $2 \cdot 10^{-2}$ to $3 \cdot 10^{-2}$ mm Hg). After short-period cathode sputtering (2-3 min) the positive maximum diminished, and after long-period sputtering (10-20 min) it disappeared entirely. In thin films (0.3- 0.4μ), the light of all wave lengths employed penetrated the entire thickness of the film, and no reversal of sign occurred in the light change. Cathode sputtering, diminishing or suppressing surface light change of potential, led to a negative minimum. The experimental results are summarized in Figs. 1 and 2 on the Enclosures. The authors conclude that cathode sputtering leads to a removal of adsorbed gas on the surface and to an increase in polycrystalline phase at the surface. "The idea for these experiments belongs to Academician A. A. Lebedev, to whom the authors express their sincere gratitude. Some of the measurements were made by degree student O. N. Zhukova. Orig. art. has: 2 figures.

ASSOCIATION: Leningradskiy gosudarstvenny universitet (Leningrad State University)

SUBMITTED: 10Nov63

DATE ACQ: 31Mar64

ENCL: 02

SUB CODE: OP, SS

NO REF SGV: 003

OTHER: 001

Card 2/4

ACCESSION NR: APL019870

ENCLOSURE: 01

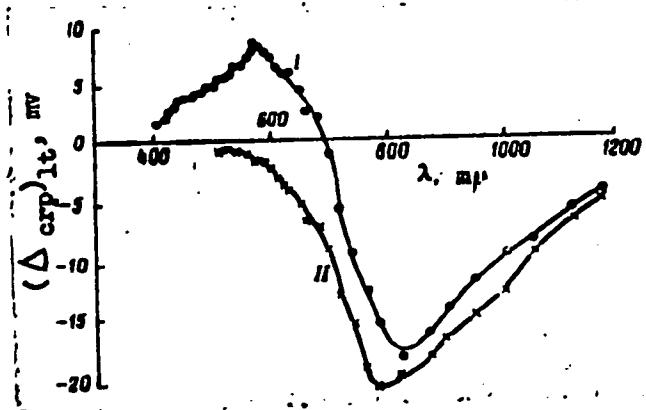


Fig. 1. Spectral distribution of surface light change of potential
 (Δ_{crplt}) for film 1.1μ .

I - before cathode sputtering; II - after cathode sputtering of film surface.

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ACCESSION NR: AP4019870

ENCLOSURE: 02

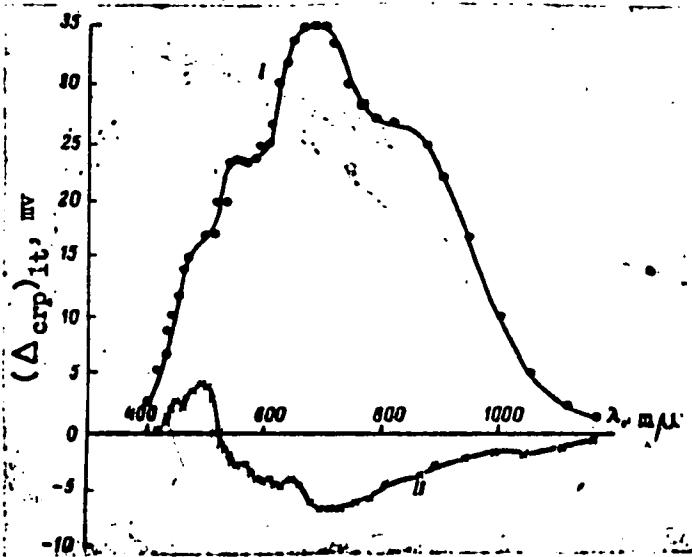


Fig. 2. Spectral distribution of surface light change of potential (Δ_{crp}^{lt}) for film 0.36μ thick.

I - before cathode sputtering; II - after cathode sputtering of film surface.

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L 33953-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) LJP(c) JD/JG
ACCESSION NR: AP5006925

S/0181/65/007/003/0950/0952

AUTHOR: Vedernikov, M. V.; Markova, I. A.; Mashkova, G. N.

TITLE: Electrical resistivity and thermal emf of La-Ce, La-Pr, and
Pr-Nd alloys. ^{v7 27 27 24}

SOURCE: Fizika tverdogo tela, v. 7, no. 3, 1965, 950-952 ²³

TOPIC TAGS: lanthanum cerium alloy, lanthanum praseodymium alloy,
praseodymium neodymium alloy, continuous series solid solution, solid
solution, rare earth metal, electrical resistivity, electrical con-
ductivity, composition

ABSTRACT: No changes occurred in the electrical conductivity of La-Pr
and Pr-Nd rare-earth metal alloys when the composition of the materials
was varied from 0 to 100%. This linear dependence was unexpected, be-
cause, even though each alloy has two similar components, the atomic
and crystallographic differences of these components are sufficiently
marked to produce an increase of resistivity of 2-3 percent. Such
an increase was actually observed in La-Ce, the third rare-earth metal
alloy investigated. The linearity of the dependence between conducti-

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1 33953-65

ACCESSION NR: AP5006925

vity and composition moreover seemed to disagree with similar measurements performed on other continuous-series solid solutions whose resistivities as functions of composition have a convex curve with a maximum occurring at a component ratio near 50:50%. It is suggested that lattice damage in the mixing of components is responsible for the increased resistivity. It is therefore assumed that in the case of La-Pr and Pr-Nd some compensating mechanism comes into play which is perhaps connected with the magnetic moment of ions and consequently enhances conductivity. A study of the thermal emf versus composition of the three alloys showed that with small admixtures of the second component irregularities appear. It is conceded, however, that these might have been caused by insufficient purity of the samples. Orig. [ZL] art. has: 2 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Semiconductor Institute, AN SSSR)

SUBMITTED: 05Nov64

ENCLOSURE: 00

SUB CODE: SS,EM

NO REF Sov: 002

OTHER: .005

ATD PRESS 3209

Card 2/2

ACC NR: AP6024398

SOURCE CODE: UR/0020/66/169/002/0371/0374

48

15

AUTHOR: Vartanyan, A. T.; Meshkova, G. N.

ORG: none

TITLE: Photo-emf in dye layers exposed to unsymmetrical transverse illumination

SOURCE: AN SSSR. Doklady, v. 169, no. 2, 1966, 371-374

TOPIC TAGS: photo emf, dyestuff, volt ampere characteristic, photosensitivity

ABSTRACT: The conditions necessary for the appearance of photo-emf, the volt-ampere characteristics, and the spectral distribution of photosensitivity were studied in a transverse-illumination photocell with platinum electrodes. Fifteen different categories of dyes were studied in air, water vapor, ethanol vapor, and in a vacuum of 10^{-5} mm Hg. Particular attention was devoted to erythrosine, Bengal pink, pinacyanol, crystal violet, and acid violet. The dye layers ranged in thickness from a few tens to a few hundred millimicrons, and a PZh-26-100 incandescent lamp was used as the light source. The decisive factor in the appearance of photo-emf was found to be the presence of solvent vapor, which determines the electrolytic conduction in the solid layer of the dye. Unsymmetrical illumination does not change the volt-ampere characteristics, which always remain symmetrical, indicating that in all the layers of dyes studied, the contacts between the dye and the electrode were ohmic. The spectral distribution of the photo-emf depends on the thickness of the dye layer. The spectral

UDC: 535.215

Card 1/2

L 40044-66

ACC NR: AP6024398

curves of the photo-emf were very similar to the spectra of the action of the electro-chemical photopotential arising in solid pigment layers immersed in electrolytes. These results lead to the conclusion that the observed emf is of other than barrier-layer origin, and represents one of the modifications of the photovoltaic effect, like the emf arising during longitudinal illumination. The paper was presented by Academician Terenin, A. N., 4 Nov 65. Orig. art. has: 2 figures and 1 table. [27]

11-20/
SUB CODE: ~~006~~ SUBM DATE: 28 Oct 65/ ORIG REF: 006/ ATD PRESS: 5053

Card 2/29d

MESHKOVA, I.N.; BAKOVA, G.M.; TSVETKOVVA, V.I.; CHIRKOV, N.M.

Kinetics and mechanism of the polymerization of α -olefins
on complex catalysts. Part 5: Polymerization kinetics of
ethylene on the catalyst system $TiCl_4 + Al(C_2H_5)_3$.
Vysokom. soed. 3 no.10:1516-1523 0 '61. (MIRA 14:9)

1. Institut khimicheskoy fiziki AN SSSR.
(Ethylene) (Polymerization)

MESHKOVA, I.N.; KUMAN'KOVA, S.A.; SVETKOVA, V.I.; CHIRKOV, N.M.

Kinetics and mechanism of the polymerization of α -olefins on complex catalysts. Part 5: Kinetics of ethylene polymerization on $TiCl_4 - Al(iso-C_4H_9)_2Cl$. Vysokom. soed. 3 no.12:1814-1822 '61. (MIR 15:3)

1. Institut khimicheskoy fiziki AN SSSR.
(Ethylene) (Polymerization) (Catalysts)

*11.1180*S/076/62/036/004/006/012
B101/B110

AUTHORS: Mal'tsev, A. N., Yeremin, Ye. N., and Meshkova, I. N.

TITLE: Steady-state concentrations of nitrogen oxide in electric discharge. IV. Effect of composition of the initial mixture on the formation of nitrogen oxide in a large vessel

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 4, 1962, 780-788

TEXT: The steady-state concentration ($\%NO$)_∞ was studied at 50-300 mm Hg, with an amperage of electric discharge of 25-500 ma in "reciprocal air" ($N_2 : O_2 = 18 : 82$), and in stoichiometric mixture ($N_2 : O_2 = 46 : 54$).The results are compared with those obtained previously for air (Zh. fiz. khimii, 30, 1615, 1956). Results: For the mixtures investigated, ($\%NO$)_∞ as a function of the amperage shows the same dependence as for air, i.e., at low pressure, ($\%NO$)_∞ rises with increasing amperage and tends toward a limit which is rather independent of pressure; at high pressures, ($\%NO$)_∞ passes through a maximum which lies close to the limit mentioned.Card 1/3 X

S/076/62/036/004/006/012
B101/B110

Steady-state concentrations ...

The limits of $(\%NO)_{\infty}$ were 5.5% in air; 8.1% in stoichiometric mixture, and 6.6% in "reciprocal air". At low amperages, however, approximately, equal $(\%NO)_{\infty}$ resulted in air and "reciprocal air". The volt-ampere characteristics of discharge in air, stoichiometric mixture, and "reciprocal air" showed that combustion voltage of the discharge is higher in air than in reciprocal air (Fig. 10). For mixtures enriched with O_2 , the oscillograms of the voltage showed the appearance of oscillations with increased frequency (1500-2000 cps). There are 12 figures and 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: July 1, 1960

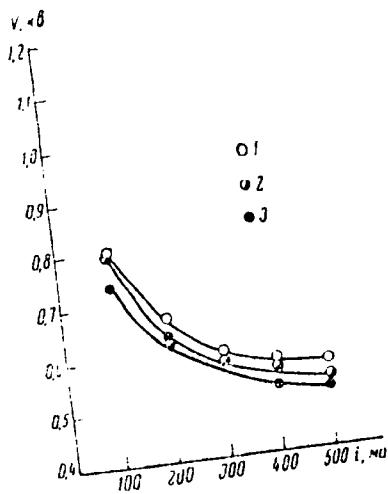
Fig. 10: Volt-ampere characteristics at 100 mm Hg. (1) air;
(2) reciprocal air; (3) stoichiometric mixture; ordinate V, kv;
abscissa i, ma.

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s/076/62/036/004/006/012
B101/B110

Steady-state concentrations ...

Fig. 10



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ACCESSION NR: AP3000121

S/0062/63/000/005/0006/0015

AUTHOR: Meshkova, I. N.; Tsvetkova, V. I.; Chirkov, N. N.

TITLE: The chain-breaking reaction in polymerization of ethylene with TiCl₄ and AlR₂ Cl₂

SOURCE: AN SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 5, 1963, 808-815

TOPIC TAGS: polymerization, ethylene, kinetics, TiCP sub 4 — AlR sub 2 Cl

ABSTRACT: "The article is published in accordance with the decision of the Conference of Chief Editors of the journals of the Academy of Sciences SSSR held in 1962, as the dissertation article of N. N. Meshkova." The authors studied the kinetics of ethylene polymerization and relationships between the molecular weight of the polymer and concentrations of monomer and catalysts. Polymerization was carried out at 30°C with molar ratios of AlR₂ Cl₂: TiCl₄ = 0.6:1-1.6:1 and ethylene pressures of 50-400 mm Hg. Forty-three milliliters of n-heptane was used as the solvent. The molecular weight of the polymer was calculated from measurements of its viscosity in tetrahydronaphthalene at 130°C. It is concluded that under steady-state conditions the molecular weight of polyethylene does not depend upon the polymerization time. When the ethylene concentration is of the

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ACCESSION NR: AF3000121

order of 10^{-2} M/l, the length of the chain is related to the ratio of the growth constant and the monomer concentration. The rate at which the chain is broken down into its components by the catalyst is commensurate with the breakdown into monomer only at lower ethylene concentrations. No appreciable spontaneous break-down of the chain occurred. With an increase in the molar ratios of the catalyst components, there was a sharp increase in the kinetic properties of the catalyst complex and not to a decrease in the rate of chain breaking caused by $TiCl_4$ as has been hypothesized by others. Orig. art. has: 3 tables, 8 figures.

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 28Sep62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: CH

NO REF Sov: 006

OTHER: 005

Card 2/2

L 12584-63 EWP(1)/EPP(G)/EHT(H)/BDS ASD Pr-4/Pc-4 BM/WW
ACCESSION NR: AP3003301 S/0191/63/000/007/0009/0013 66
AUTHORS: Meshkova, I. N.; Belov, G. P.; Tsvetkova, V. I.; Chirkov, N. M.
TITLE: Polymerization of ethylene under stationary effect of heterogeneous
complex catalysts
SOURCE: Plasticheskiye massy, no. 7, 1963, p-13

TOPIC TAGS: ethylene, $TiCl_4-AlEt_2Cl$, propane, heptane

ABSTRACT: The kinetics of polymerization of ethylene was studied in the presence of $TiCl_4-AlBu_2Cl$ and $TiCl_4-AlEt_2Cl$ in propane with a monomer pressure of 4 to 5 atm., and in heptane at 150mm Hg. The catalysts were tested at various concentrations with molar ratios of Al : Ti starting from 0.65 to 3 : 1 at temperature interval between 30 to 500. The character of polymerization of ethylene in the propane media is the same as in other saturated hydrocarbons such as n-heptane. It was found that the conditions which form a stable catalytic system $TiCl_4-AlBu_2Cl$ and $TiCl_4-AlEt_2Cl$ are obtained with low concentrations of catalyst components. These stable concentrations are with molar ratios of Al to Ti of 1 : 1 or even lower. A possibility of obtaining high stationary speeds in the process is also shown. This unable to obtain the needed quantity of polymeric

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ACCESSION NR: AF300SSOL

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product in a period of 2 to 4 hrs. using 0.4 to 0.7% of the total catalyst. The polyethylene obtained at stationary conditions with the TiCl₃-AlBu₂Cl system in propane, has a characteristic viscosity of 3.5 to 4.2 in 100cm⁴/g, with the rupture stress of 320 to 330 kg force/cm² and relative elongation of 500-900%. Orig. art. has 5 tables and 4 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: NL

NO REF Sov: 004

OTHER: 000

2/2

Card

S/0062/64/000/002/0386/0388

ACCESSION NR: AP4019018

AUTHORS: Meshkova, I. N.; Tsvetkova, V. I.; Chirkov, N. M.

TITLE: Rupture of the polymer chain during ethylene polymerization over $TiCl_4-AlEt_2Cl$

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 386-388

TOPIC TAGS: polyethylene chain rupture, titanium chloride, diethyl-aluminum chloride, polymer chain, ethylene, ethylene depolymerization, ethylene polymerization, polymer chain rupture

ABSTRACT: This is a continuation of the work by the same authors concerning depolymerization of ethylene depending on the monomer concentration and $TiCl_4$ content in the $TiCl_4-AlEt_2Cl$ catalyst (same journal 1963, 808). In the depolymerization process the chain rupture is accompanied by transmission processes. The purpose of this work was to calculate the reaction constants of these processes. At 30°C and with a $TiCl_4$ concentration of 1 g/l (molar ratio of $AlEt_2Cl:TiCl_4$ ranges from 0.6:1 to 1.6:1), spontaneous rupture is infinitesimal. Tests have shown that the ratio of rate constants for

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ACCESSION NR: AP4019018

the chain rupture in processes initiated by the monomer, by $TiCl_4$, and by $AlEt_2Cl$, as indicated by the changes of the molecular weight of the polymer depend on the molar ratio of titanium chloride to aluminum alkyl chloride chiefly because of the change in the nature of the catalytic centers rather than because of the chain rupture rate due to the components of the catalyst. The article contains detailed calculations of reaction constants - both polymerizing and depolymerizing. At adequate monomer pressures (1 atm and above) with proper concentrations of conventional catalysts, chain ruptures are much higher than that obtained with $TiCl_4$ and $AlEt_2Cl$. Orig. art. has: OO.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 13Aug63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: CH

NR REF SOV: 003

OTHER: 000

Card

2/2

L 36972-66 EWP(1)/ EWT(m) RM/WW
ACC NR: AP6008501 SOURCE CODE: UR/0062/66/000/001/0077/0083

AUTHOR: Meshkova, I. N.; Tsvetkova, V. I.; Chirkov, N. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Polymerization of ethylene in the presence of titanium tetrachloride and alkyl halides of aluminum

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1966, 77-83

TOPIC TAGS: catalytic polymerization, polymerization rate, ethylene, titanium compound, alkyl halide, aluminum compound

ABSTRACT: The authors study the relationship of the rates of accumulation of reduced titanium and rates of polymerization of ethylene in the presence of diethylaluminum chloride at 30°C; molar ratios of AlEt₂Cl to TiCl₄ of 0.6:1, 1.2:1, and 2.4:1; at a constant initial concentration of AlEt₂Cl equal to $7.4 \cdot 10^{-3}$ M/liter. To elicit the effect of monoethylaluminum dichloride (which appears during reduction) on the catalytic properties of the system, experiments are carried out on the polymerization of ethylene on TiCl₄ and AlEt₂Cl with additions of AlEtCl₂. The experiments demonstrated that, after the addition of AlEtCl₂ to the stable catalytic system formed upon the interaction of TiCl₄ and AlEt₂Cl, the activity of the catalyst noticeably drops. On the basis of these data the authors consider

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UDC: 531.1+542.952

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ACC NR: AP6008501

that the change in the composition of the cocatalyst (the replacement of AlEt_2Cl by AlEtCl_2) is the basic cause for the decrease in the rate of polymerization in time. It was further found that in the catalytic systems forming in the reaction of TiCl_4 and organoaluminum compounds, there are other cocatalysts besides aluminum alkyls (titanium alkyls or complexes of TiCl_4 with titanium alkyls or aluminum alkyls) which, being adsorbed on the surface of the catalytic precipitate, form the most active centers of polymerization. Orig. art. has: 2 tables and 5 figures.

SUB CODE: 07/ SUBM DATE: 22Aug63/ ORIG REF: 009/ OTH REF: 006

Card 2/2 988

SOV/124-58-8-9201 D

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 125 (USSR)

AUTHOR: Meshkova, L.A.

TITLE: Some Problems of the Ultimate Equilibrium of Rock (Nekotoryye zadachi predel'nogo ravnovesiya gornykh porod)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Physical and Mathematical Sciences, presented to the In-t mekhan. AN SSSR (Institute of Mechanics, Academy of Sciences, USSR), Moscow, 1958

ASSOCIATION: In-t mekhan. AN SSSR (Institute of Mechanics, Academy of Sciences, USSR), Moscow

Card 1/1

MESHKOVA, L A

F

PHASE I BOOK EXPLOITATION 1035

Moscow. Fiziko-tekhnicheskiy institut

Issledovaniya po mekhanike i prikladnoy matematike (Studies of Mechanics and Applied Mathematics) Moscow, Oborongiz, 1958. 218 p. (Series: Its: Trudy, vyp. 1) 2,400 copies printed.

Ed. (Title page): Sokolovskiy, V.V., Corresponding Member, USSR Academy of Sciences; Ed. (Inside book): Zaytseva, K.Ya., Engineer; Ed. of Publishing House: Kuznetsova, A.G.; Tech. Ed.: Rozhin, V.P.; Managing Ed.: Zaymovskaya, A.S.

PURPOSE: This book contains a collection of scientific articles intended for scientific workers, engineers and senior students in the fields of mechanics and applied mathematics.

COVERAGE: The book contains 14 scientific articles on mechanics and applied mathematics. Seven articles deal with various problems of the mechanics of materials. Problems of elastic, plastic and elastic-plastic deformations of various materials

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Studies of Mechanics and Applied (Cont.) 1035

under different conditions are studied. Three articles deal with problems of fluid mechanics and gas dynamics. The last 4 articles are on applied mathematics.

Rzharitsyn, A.R., Doctor of Technical Sciences. Taking Humidity and Temperature into Account in Problems of Creep 3
The article contains the following sections: Introduction;
1) Fundamental physical dependence [between stress and deformation]; 2) Approximate solution; 3) Example taking into account the effect of temperature; 4) Another substantiation of the method; 5) Problems concerning drying of a thin plate fixed at the edges; 6) Taking into account the effect of setting concrete.

Rabinovich, A.L., Candidate of Technical Sciences. Torsion of an Element of a Circular Ring (General Saint-Venant Problem) 17
The article contains the following sections: Introduction;
1) Fundamental equations; 2) Checking the solution and expression for rigidity in torsion; 3) Stress function; 4) Expression

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4

Studies of Mechanics and Applied (Cont.) 1035

pression of the potential energy of deformation; 5) Segment of [circular] ring with rectangular cross section.

Meshkova, L.A. Certain Problems on Ultimate Equilibrium of Rocks
The article contains the following sections: Introduction; 1)
Ultimate equilibrium of semiarches with a free contour; 2) Ap-
proximate solution; 3) Determination of the pressure of a rock
on a curved wall; 4) Approximate solution in the neighborhood
of a wall contour.

Geogdzhayev, V.A. Plastic Plane Deformation State of Orthotrop- 55
ic Media

The article contains the following sections: Introduction;
1) Equilibrium of a half plane; 2) Slip of a strip; 3) Dis-
tribution of stresses in the neighborhood of a slot located
at a finite distance from a free straight-line boundary.

Geogdzhayev, V.O. Certain Problems in the Elastic-plastic De- 69
formation of Anisotropic Materials

Card 3/6

Studies of Mechanics and Applied (Cont.) 1035

Kukudzhanov, U.N. Elastic-plastic Bending of Thin-walled Beams
Taking into Account Tangential Stresses 97
The article contains the following sections: Introduction;
1) Fundamental equations; 2) Rectangular cross section; 3)
Ultimate state [of a beam]; 4) Thin-wall rods composed of
straight-line elements; 5) Conclusions.

Rabinovich, A.L., Candidate of Technical Sciences; Shtarkov,
M.G. and Dimitriyeva, Ye.I. Methods of Determining the Values
of Elastic Constants of Glass Textolite at Raised Temperature 115
The article contains the following sections: Introduction;
1) Modulus of elasticity of KAST-V [glass textolite] depend-
ing on direction of fibres (at room temperature) 2) Depend-
ence of the strength of KAST-V on the direction of tension
at room temperature; 3) Effect of temperature "hardening"
and of repeated loadings on KAST-V properties; 4) Develop-
ment of the methodology of temperature testing of KAST-V
with strain pickups; 5) Methodology of tests with Martens
device; 6) Frequency method for determination of the

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7

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001033710004-2

MESHKOVA, L.A.

Problems on limit equilibrium of rocks. Trudy MFTI no.1:42-54 '58.
(MIRA 12:1)

(Rocks)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001033710004-2"

AUTHOR: Meshkova, L.B. (Moscow). 24-7-26/28

TITLE: Certain problems of the limit equilibrium of rocks.
(Nekotorye zadachi predel'nogo ravnovesiya gornykh porod).

PERIODICAL: "Izvestiya Akademii Nauk", Otdeleniye Tekhnicheskikh Nauk"
(Bulletin of the Ac.Sc., Technical Sciences Section),
1957, No.7, pp.156-159 (U.S.S.R.)

ABSTRACT: Solutions published by Sokolovskiy, V.V. (1) for the
limit equilibrium of a semi-arch in a cohesive medium (1,2)
are applied in this paper to rocks, i.e. for the case that
the conditions of the limit state of the medium are
represented by a curvilinear envelope curve of the main
stress circles. The author considers the limit equilibrium
of a semi-arch with a free contour. For calculating the
pressure of rocks on a curvilinear wall the equations (2.9),
p.159, are derived for σ_n , σ_t and τ_{tn} . As an example the
pressure is determined on a circular wall of the radius R
and for this a system of sliding lines in dimensionless
coordinates and epures of dimensionless stresses along the
wall contour are plotted in Fig.3, p.159.

1/1 There are three figures and 5 references, 4 of which are Slavic.

SUBMITTED: November 24, 1956.

AVAILABLE:

MESHKOVA, L.S.; GALINKER, V.S.; KUDRA, O.K.

← Lead plating with trilon B. Mashinostroenie no.3:77-79 My-Je '62.
(MIRA 15:7)

(Lead plating)

GALINKER, V.S.; MESHKOVA, L.S.; KUDRA, G.K.

Cathodic polarization during the separation of lead from trilonate complex electrolytes. Ukr. khim. zhur. 31 no.8:866-871 '65.
(MIRA 18:9)

1. Kiyevskiy politekhnicheskiy institut.

AFANAS'YEVA, N.G.; MESHKOVA, L.Z.

Maryological and geographical investigations as applied to the
phylogeny of the genus Veronica L. Bot. zhur. 46 no. 2:247-259
F '61. (MIRA 14:2)

1. Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.
(Speedwell) (Chromosomes) (Phytogeography)

AFANAS'YEVA, N.G.; MIKHAYLOVA, Ye.I.; MESHKOVA, L.S.

Cytotaxonomical study of *Veronica alpina*. Nauk. tr. k. vyp.
shkoly; tspl. nauch. nauch.-issled. 1964. (MFA 19:1)

1. Rekomendovana kafedroy sistematiki rasteniy Kazanskogo
gosudarstvennogo universiteta im. V.I.Ulyanova-Lenina.
Submitted October 1, 1964.

COUNTRY : USSR
CATEGORY : Farm Animals. Sheep
ABS. JOUR. : RZBiol., No. 13, 1958, No. 59559
AUTHOR : Meshanova, N. A.
INST. : Bet-Pak-Dala Complex Experiment Station of *
TITLE : Winter Lambing under All Year Round Pasture
Management of Sheep in the Bet-Pak-Dala
Steppe
ORIG. PUB. : Tr. Betpak-Dalinsk., kompleksn. opytn. st.
zhivotnovodstva. Alma-Ata, Kazakhsk. gos. **
ABSTRACT : No abstract.

* Animal Husbandry
** izd-vo, 1957, 121-126

CARD: 1/1

S/191/62/000/011/015/019
B101/B186

AUTHORS: Barshteyn, R. S., Meshkova, N. D.

TITLE: Method of controlling interesterification

PERIODICAL: Plasticheskiye massy, no. 11, 1962, 63-64

TEXT: Refractive index - versus - composition graphs were plotted for the mixtures methanol - 1,2-propylene glycol; butanol - ethylene glycol; 1,2-propylene glycol - butanol; in order to determine the quantity of glycol distilled off in interesterification of dicarboxylic esters with methanol, ethanol, or butanol. A linear dependence of n_D^{20} on the composition and the number of hydroxyl groups was found. Thus, it is possible to determine the glycol content by measuring the n_D^{20} in the distillate. There are 4 figures.

Card 1/1

MESHKOVA, N.D.; MIGOTINA, Ye.N.; KONOVALOV, D.S.

Dissociation energy of the carbon-halogen as dependent on the
molecular volume. Zhur. fiz. khim. 38 no.9:2251-2252 S '64.
(MIRA 17:12)

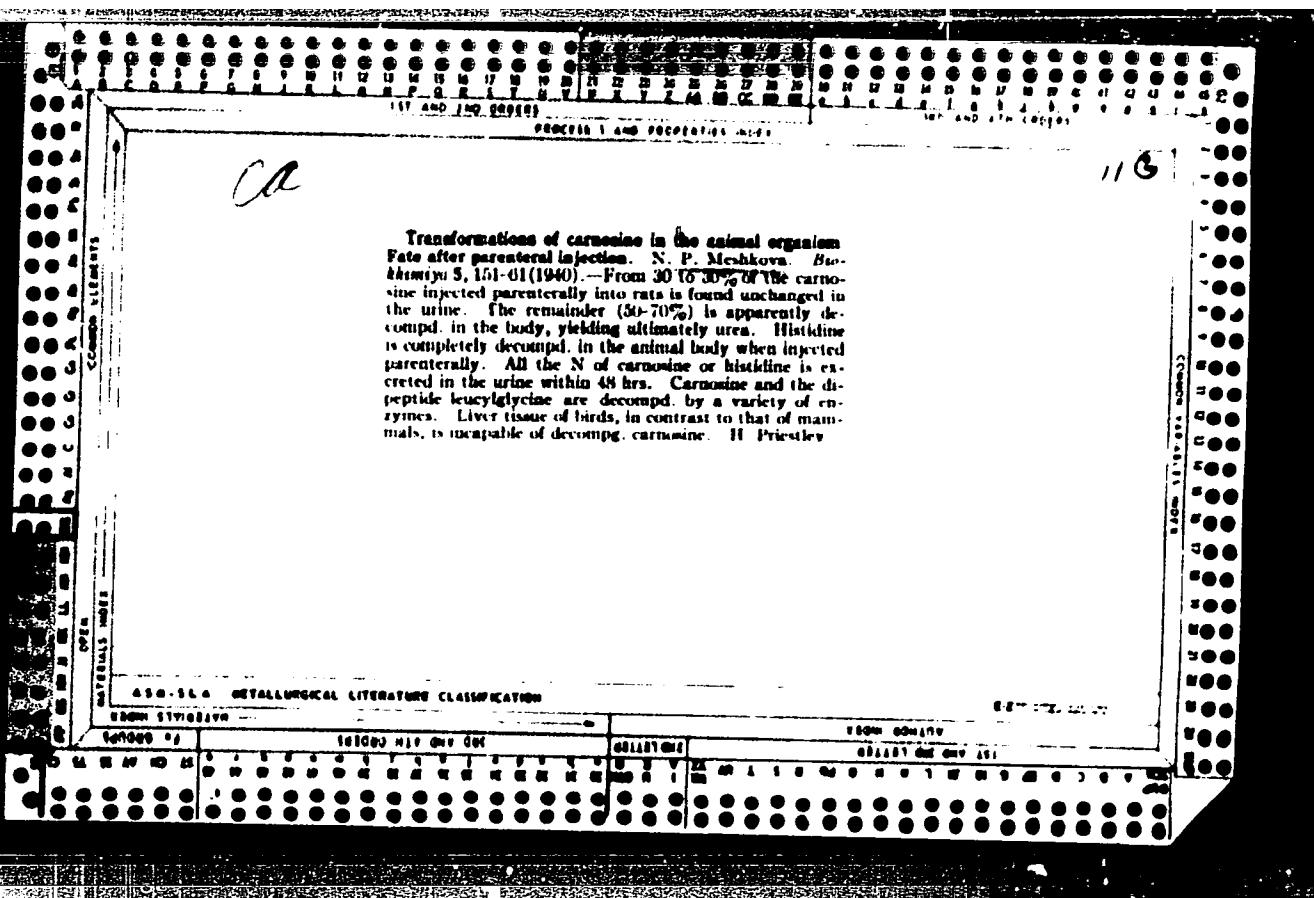
✓ Distribution of nitrogenous extractives of muscle in the
Electric field. N. P. Meshkova. Bull. Acad. med. expd.
U.R.S.S. 1, 101-3 (1951). *Physiol. Abstracts* 22, 581.—
When aq. muscle exts. are placed in an elec. field, most of
the nitrogenous extractives pass to the cathode, including
the greater part of the creatine, creatinine and carnosine.
However, this method cannot replace the usual ppts.
Methods for the isolation of these compds., since signifi-
cant amounts pass to the anode or are unaffected. M. W. B.

The fate of carnosine in the animal organism. I. The action of carnosine upon autolytic processes in muscle tissue. S. I. Nishikawa and A. I. Zolotarevskaya. *Bull. biol. med. exp. U. R. S. S.* 4, 50-21 (1937) (in English).—Portions of muscle tissue of rabbits were placed in a thermostat for 1-3 days in carbonated Ringer soln. with and without the addition of carnosine (I). It was found that the presence or absence of I does not affect the course of the increase in nonprotein N, amino acid N, ammonia N or the N fraction showing a diazo reaction. Purine and creatine-creatinine fractions do not change. In all cases there was a slight acid shift at the end of the reaction. No breakdown of I with accumulation of ammonia N was observed. Histidine was absent in all cases. II. The splitting of carnosine by kidney tissue enzymes. S. E. Severin and E. F. Georgievskaya. *Ibid.* 6, 63 (6th English)—The kidney tissue of rats and

rabbits contains peptidases which produce a strong hydrolytic splitting of carnosine at $\text{pH } 7.3$ under both aerobic and anaerobic conditions. III. The splitting of carnosine under the influence of the peptidases of organs and tissues of the animal organism. P. G. Garkavi. *Ibid.* 57 (in English); cf. *C. A.* 32, 3770^a. Freshly prep'd. ground tissue of the liver and kidney, the red blood cells of rabbits and rats, and rabbit brain tissue contain peptidases which produce hydrolytic splitting of carnosine (I). When the tissue of the liver, kidney, spleen or muscle was used in the form of a dry powder no splitting of I occurred. Glycerol exts. of the liver and spleen were also active in splitting I. IV. The influence of carnosine upon glycolysis and breakdown of adenosine-triphosphoric acid in muscle tissue. R. V. Udelevich. *Ibid.* 62-4 (in English).—The quantity of pyrophosphate in the muscle tissue of rats and the brain tissue of rabbits decreases upon incubation in the presence of carnosine (I). It inhibits glucolysis. It is suggested that I exhibits a specific action upon the system that catalyzes glucolysis. S. A. K.

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001033710004-2"



The Van Slyke method for the determination of amino acids. N. P. Meshkova. (Univ. of Moscow). *Biochimika* 10, 609-620 (1945). — The HOAc used in the Van Slyke method can be replaced by 10% H₂O₂. This concn. of mineral acid does not cause any hydrolysis of peptide linkages which might affect the accuracy of the results. H. Prestwich.

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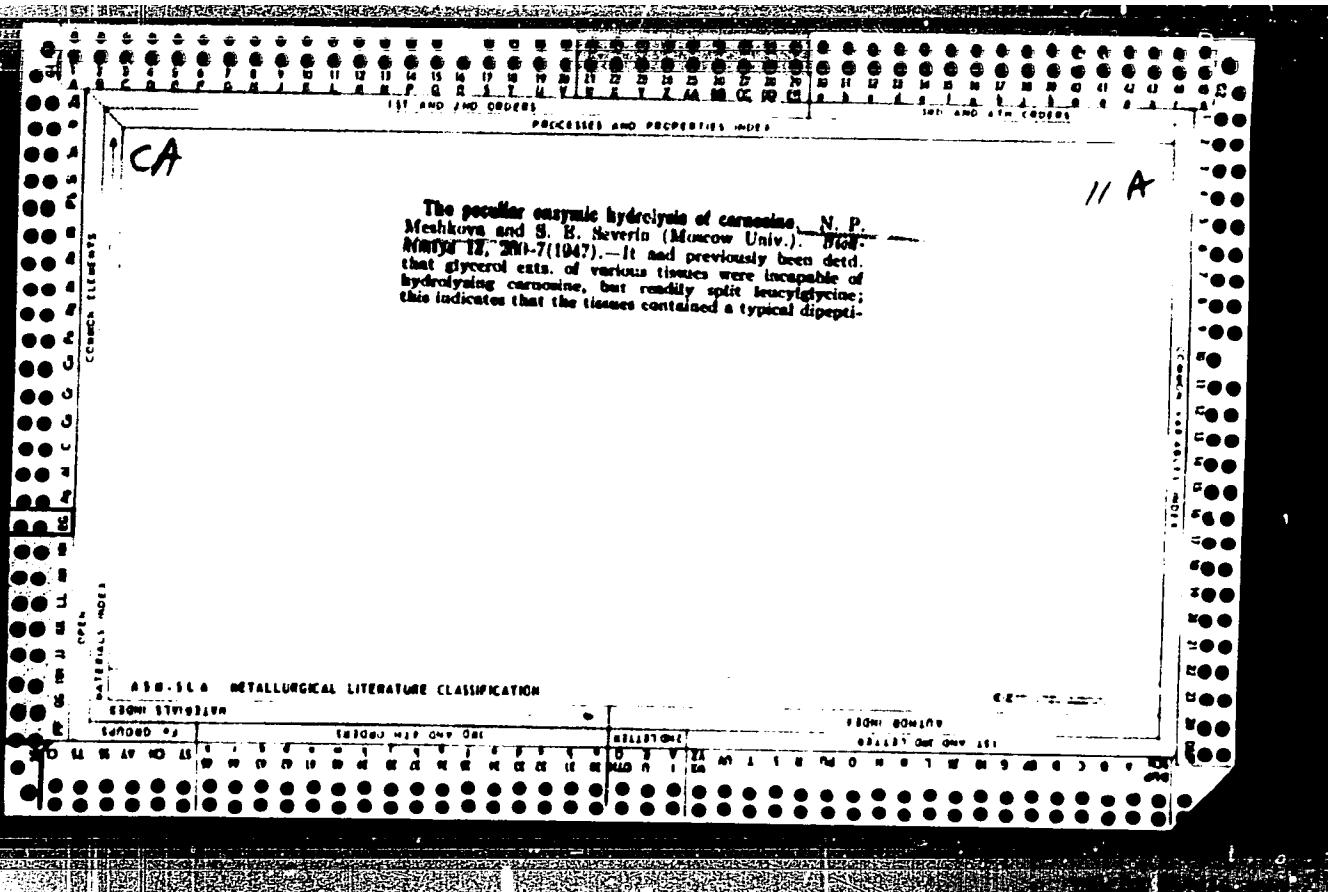
ABSTRACTS METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R001033710004-2"

MESHKOVA, N. P.

"On the Enzymatic Splitting of Carnosine," Biokhim, 12, No. 3, 1947. Lab. Animal Biochemistry, Moscow State University, -1947-.



MESHKOVA V.P. AND SEVERIN S.E.

4196. Meshkova V.P. and Severin S.E. Effect of carnosine on aerobic and carbohydrate phosphate metabolism of red breast muscle of peacock. Doklady Akad. Nauk S.S.R. 1950, 74 (540-542)

Addition of carnosine or carnosine to nimmed muscle specimens in phosphate buffer (PH 7.0-7.1) with 0.005 M NaF in O₂ or H₂ gave showed greater uptake of inorg. P than in controls. The P was found in the efficiently hydrolyzable fraction. Aerobic conditions gave more clearly defined results than did anaerobic. Carnosine led to greater O₂ consumption by the tissues but this effect was destroyed by bromoacetate. Thus carnosine appears to take part in formation of phosphopyruvic acid from phosphoglyceridic acid and in conversion of pyruvic acid into lactic acid. Confirmation was obtained in increase of binding of inorg. P when pyruvate was added to the mixture in incubation under anaerobic conditions in presence of NaF. No phosphopyruvic acid was detected.

SC. Excerpta Medica Section II Volume 4 Number 1

TRANSLATOR [initials]

MESHKOVA, N. P.; MALYSHEVA, N. A.

Effects of carnosine and anserine on carbohydrate-phosphorus metabolism in breast (red) muscles in pigeon.
Doklady Akad. nauk SSSR, 8 no. 2:247-250 11 Nov. 1951.

(CIML 21:3)

1. Presented by Academician A. I. Oparin 10 September 1951.

117

CA

Effect of carnosine and anserine on carbohydrate-phosphorus metabolism of the pectoral (red) muscle in pigeons
V. P. Meshikura and N. A. Mulysheva. Doklady Akad
Nauk SSSR 81, 247 (1952). In vitro expts. show that
carnosine causes a decrease in fructose diphosphate and in
crease in glycerocephosphate concn. Adenosine triphosphate
does not appear to build up. Labile P increases in expts
in which added creatine was introduced especially when
carnosine was present, part of it appears as creatine phos-
phate. Carnosine stimulates reduction oxidation reactions
and participates in formation of energy rich P complex
and generally protects adenosine triphosphate from hy-
drolysis and accelerates phosphatate transfer to phospho-
creatine. G. M. Kondukov

CA

60

Effect of carnosine on oxidative phosphorylation. S. B. Severin and N. P. Mekhova. *Doklady Akad. Nauk S.S.R.* 84, 103-5 (1952). Minced pigeon-breast muscle incubated in phosphate buffer in the presence of 0.025 M NaF, with added creatine to detect the formation of adenosine triphosphate, was examined as to oxidative phosphorylation in the presence of carnosine. The incubated specimens were chilled and treated with trichloroacetic acid and the filtrate used for detn. of labile phosphate. Phosphocreatine was detd. by addn. of 1 ml. filtrate to 1 ml. myodeilate reagent and letting stand several hrs.; after filtration, the soln. was neutralized and the creatine titred, by means of picric acid. Incubation of the tissue in anaerobic conditions gave no labile phosphate; in expts. with detn. of consumed O₂, the addn. of carnosine raised the respiration of the tissue, the 2 factors being proportional to each other. Formation of phosphocreatine acid was independent of added carnosine. Hence labile P does not depend on glycolytic oxidation-reduction. The O₂ consumption in presence of carnosine is independent of added creatine, but significant amounts of labile P arise only when both creatine and carnosine are added. The added carnosine does not appear to undergo any changes. The Labile P formed in respiratory phosphorylation with added carnosine is not only phosphocreatine; the lability of the substance prevented its isolation. Possibly it is phosphocarnosine. G. M. Koziapoff

MESHKOVA, N. P.

Chemical Abstracts
May 25, 1954
Biological Chemistry

Effect of asserine on respiratory phosphorylation. S. E. Severin and N. P. Meshkova. *Doklady Akad. Nauk S.S.R.* 92, 807-10 (1953); *C. I. A.* 46, 8170c.—The participation of asserine in respiratory phosphorylation as studied with pigeon breast muscle does not take place specifically at formation of adenosinetriphosphate (ATP), but must take place at some stage which is intermediate between direct oxidation of the substrate and formation of ATP. Such tests cannot be run in the presence of NaF since the latter retards the utilization of O₂ by the tissue and accumulates labile P. Addn. of asserine without NaF leads to formation of excess labile phosphate which is proportional to the amt. of added asserine (up to 1000 mg. %). The intensity of respiration and phosphorylation under these conditions is linear for 40-50 min. at 20-2°; in longer runs the formation of labile phosphate begins to decline. Addn. of small amounts of α-ketoglutaric acid raises respiration intensity and increases the concn. of labile phosphate; if asserine is also added the resulting excess is nearly the sum of the individual increments. The same relation is found for O₂ consumption. Carnosine shows a similar but much weaker action than asserine. G. M. Kosolapoff

Acad Med Sci
NIH translation - J.M.

MESHKOVA, N. P.

Chemical Abst.
Vol. 48
Apr. 10, 1954
Biological Chemistry

Effect of carnosine and asserine on formation of energy-rich phosphorus compounds in the muscle tissue. N. P. Meshkova and N. N. Satseva. *Doklady Akad. Nauk S.S.R.* 92, 999-1002(1953); cf. C.A. 46, 40864.— Incubation expts. with minced pigeon-breast muscle specimen with or without added NaF (NaF retards tissue respiration and formation of labile phosphates) showed that carnosine and asserine added to the mince lead to greater formation of adenosinetriphosphate (ATP) by increasing intensity of oxidative phosphorylation. In presence of glucose and hexokinase as phosphate acceptors; addn. of asserine leads to greater accumulation of fructose diphosphate, caused by greater formation of ATP; asserine does not affect the hexokinase reaction. Carnosine and asserine accelerate formation of phosphocreatine only in undialysed excts., thus showing acceleration of transesterification of ATP in respect to creatine. G. M. Kosolapoff

NII Translation - /m

MESHKOVA, N.P. (Moskva); ALEKSAKHINA, N.V. (Moskva)

Determination of acid-soluble phosphorus compounds by means of separation. Usp.biol.khim. 2:277-291 '54. (MIRA 12:1?)
(PHOSPHORUS, determination,
acid-soluble phosphorus cpds.)

Mestikova, N. F.

✓ Prevention of the action of poisons on the oxidative metabolism of muscle tissue by means of amserine. S. E. Severin, N. P. Mestikova, and N. I. Razuinovskii (M. V. Lomonosov State Univ., Moscow). Doklady Akad. Nauk S.S.R. 103, 871-4 (1955); cf. C.A. 49, 4074, 56904. Elect. with pigeon breast muscle specimens in the presence of CN ions showed that addn. of amserine raises the amt. of bound P in the tissue which is proportional to the amt. of residual respiration. Carnosine does not stimulate

phosphorylation in these conditions. In elects. with NaCN it was shown that amserine almost completely prevents the toxic action of azide on respiratory phosphorylation; either carnosine or histidine added to the azide system increases O consumption and increases the formation of labile P. In the presence of dinitrophenol amserine increases only that part of phosphorylation which is not blocked by the nitrophenol.

G. M. Kosolapoff

(2)

MESHKOVA, N.P.

Effect of anserine on oxidative phosphorylation in muscle tissues.
Biokhimia 24 no.2:323-328 Mr-Ap '59. (MIRA 12:7)

1. Chair of Animal Biochemistry, the State University, Moscow.
(ANSERINE, eff.
on musc. oxidative phosphorylation (Rus))
(MUSCLE, eff. of drugs on,
anserine, on oxidative phosphorylation (Rus))

MESHKOVA, N. P., SHESTAKOV, S. V., SEVERIN, S. E., VULFSON, P. L., (USSR).

Effect of Carnosine and Anserine Dipeptides on the Metabolism of Skeletal Muscle.

report presented at the 5th Int'l.
Biochemistry Congress, Moscow, 10-16 Aug. 1961

MESHKOVA, N. P. (USSR).

Oxidative Phosphorylation and Glycolysis in Muscle Tissue during Local Tetanus.

report presented at the 5th Int'l.
Biochemistry Congress, Moscow, 10-16 Aug. 1961.

MERKHOVA, N.P., SHUSTAKOV, S. V., VIL'ZOV, P.L., SEV'YAN, S. E., (USSR)

"Effect of Carnosine and Anserine Dipeptides on the
Metabolism of Skeletal Muscle."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

ISS 500A, 1980 (U.S.)

"Oxidative Phosphorylation and Glycolysis in Muscle Tissue
During Local Tetanus."

Report presented at the 1st Int'l. Conference on
Toxicology, Moscow, 10-16 Aug 1980

DRENNNOVA, K. A., prof.; GRISHIN, S. I., prof.; MARTYNNENKO, I. I.;
DADAMUKHAMEDOV, A. N.; IBRAGIMOV, R. I.; AMILOVA, A. A.; FEL'DMAN, F. Ya.;
MESHKOVA, N. P.; SHENKER, D. I.

Condition of the ears nose and throat in children of preschool age
in Tashkent. Vest. otorin. no. 3: 60-62 '61. (MIRA 14:12)

1. Iz Otorinolaringologicheskoy kafedry (zav. - prof. K. A. Drennova)
Tashkentskogo instituta usovershenstvovaniya vrachey.

(TASHKENT—OTOLARYNGOLOGY)

MESHKOVA, N.P.

Larvae of *Ephemeropsis triseta* Fischwald (Insecta). *Paleont.zhur.*
no.4:164-168 '61. (MIRA 15:3)

1. Paleontologicheskiy institut AN SSSR.
(Insects, Fossil)

MESHKOVA, N.P.; MATVEYEVA, R.A.; SHKARENKOVA, L.S.

Oxidation and carbohydrate-phosphate metabolism of rat muscles in
local tetanus. Vop. med. khim. 7 no. 1:85-93 Ja-F '61.

(MIRA 14:4)

1. Chair of Animal Biochemistry, Moscow State University.
(MUSCLES) (TETANUS) (METABOLISM)

MESHKOVA, N.P.

Second Congress of the Czechoslovakian Biochemical Society. Vop.
med. khim. 7 no. 1:104-106 Ja-F '61. (MIRA 14:4)
(BIOCHEMISTRY—CONGRESSES)

MESHKOVA, N. P.

4

ASRATYAN, Ezra Asratovich, Physiological
Laboratory, Academy of Sciences USSR, Moscow
- "The effect of use and disuse on nerve
cells following spinal cord transection"
Session II-1

FERDMAN, David Lazarevich, Institute of
Biochemistry, Academy of Sciences Ukrainian
SSR, Kiev - "Biochemical characteristics of
dystrophy and atrophy of muscles" Session II-2-a

KOSTYUK, Platon Grigor'yevich, Deputy Director,
Institute of Physiology imeni A.A. Bogomolets,
Academy of Sciences Ukrainian SSR, Kiev -
"Functional changes in central synapses
following denervation" Session II-1

MESHKOVA, N. P., Chair, Animal Biochemistry,
Moscow State University, Moscow - "Muscle
changes produced by tetanus toxin" II-2-b

report to be submitted for the Symposium on the Effects of Use and Disease on
Neuromuscular Functions (IUPS), Prague-Liblice, Czech., 18-24 Sep 1962.

MESHKOVA, N.P.; LIPSKAYA, T.Yu.; ORESHNIKOVA, N.A.

Oxidative phosphorylation and glycolysis in the muscle tissue
in local tetanus. Vop.med.khim. 8 no.1:78-82 Ja-F '62.
(MIRA 15:11)

1. Kafedra biokhimii zhivotnykh Moskovskogo gosudarstvennogo
universiteta imeni M.V.Lomonosova, Moskva.
(MUSCLE) (PHOSPHORYLATION) (GLYCOLYSIS) (TETANUS)

MECHKOVA, N.P.

Carnosine and anserine, dipeptides of the skeletal musculature.
Usp. biol. khim. 6:86-17 '64. (MIRA 18:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

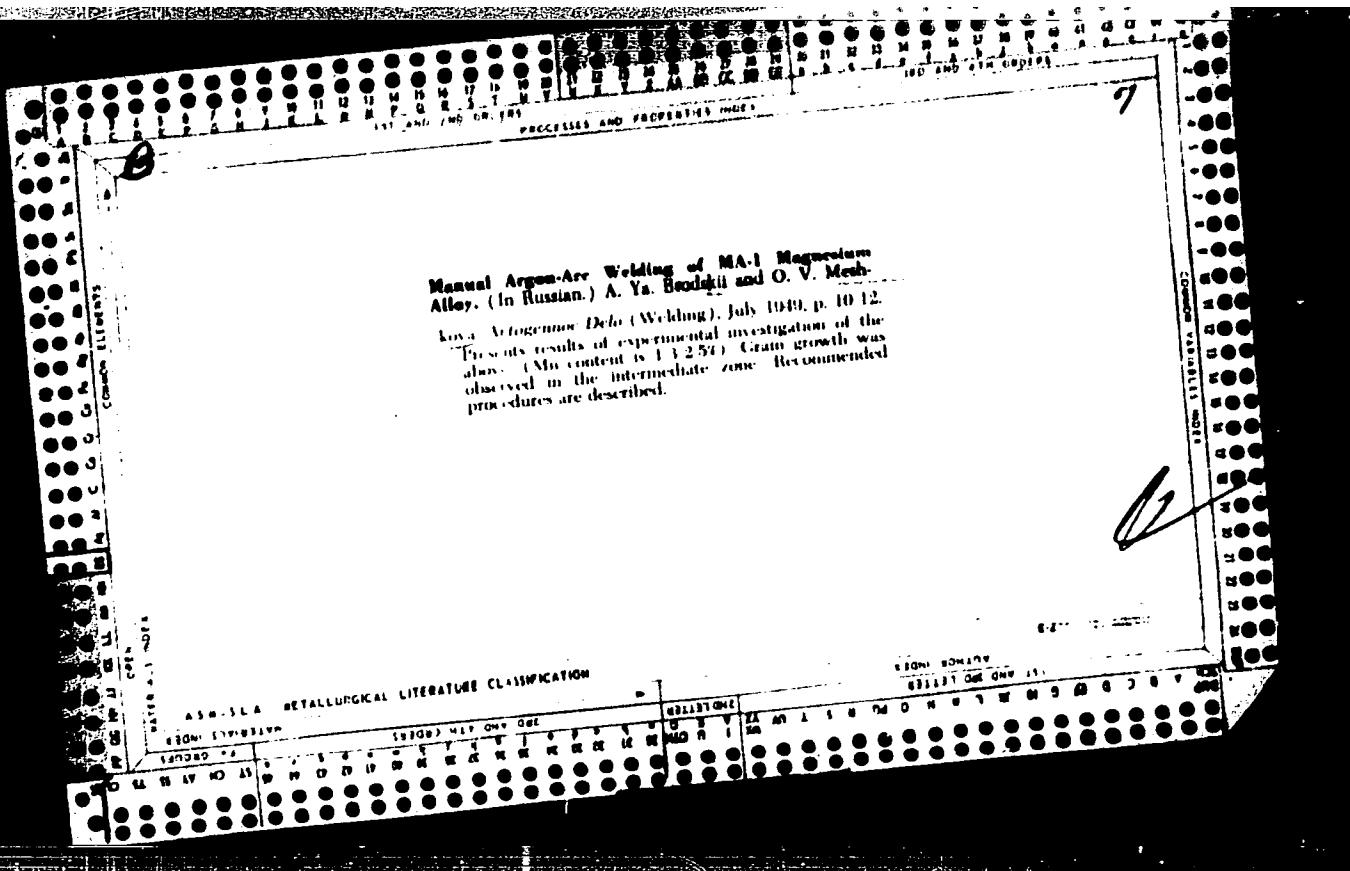
MESHKOVA, N.P.; KARYAVKINA, O.Ye.

Participation of carnosine and anserine in the glycolytic and oxidative processes in a muscular tissue. Biokhimiia 30 no.1:88-94 Ja-F '65. (MIRA 18:6)

1. Kafedra biokhimiï zhivotnykh biologo-pochvennogo fakul'teta Gosudarstvennogo universiteta imeni Lomonosova, Moskva.

MESHKOVA, N.Ye.

Equipment for wide-sized poultry houses. Biul. tekhn.-ekon.
inform. Gos. nauch.-issel. inst. nauch. i tekhn. inform. 17 no.4:
(MIRA 17:6)
61-62 Ap '64.



RECHENKA, G. V., Shestopalov, Yu. V., SYAMIN, I. V., SYKURIN, V. V., TRONOV, V. V.

"Methods of Attaching Antimagnetic Coatings to Alloys.

paper presented at All-Union Scientific-Technical Conference on Magnetic Shielding Gases, Leningrad, Dec. 1977.

Over many years there have been many publications on the methods of attaching magnetic coatings to various materials.

18.1710
S/135/62/000/004/009/016
A006/A101

AUTHORS: Yakushina, G. M., Engineer, Meshkova, O. V., Candidate of Technical Sciences, Yakushin, B. F., Engineer

TITLE: Comparison of some methods for evaluating the technological strength of aluminum alloys in welding

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1962, 23-26

TEXT: The authors compared results from evaluating the resistance of aluminum alloys to hot crack formation during welding. The results were obtained with the aid of various test methods. The tests were made with alloys whose crack sensitivity in welding was known from their use in welded structures. The investigations were carried out for the purpose of selecting the best test methods. The tests were made with three technological samples (cross-shaped, fishbone and round specimens) and with the use of the MVTU method, when the specimens are welded at $q/v = \text{constant}$ and the specimen is stretched during crystallization perpendicularly to the seam axis at different rates. It was found that round specimens were suitable for the qualitative evaluation of hot crack resistance in the welding of alloys. For the quantitative evaluation the

Card 1/2 X

Comparison of some methods ...

3/135/62/xx/xx/xx
AC/6/A1C

MVTU method should be employed. To determine the proneness of alloy to the development of cracks, the cross-shaped and fishbone specimens can be used. However, the cross-shaped specimen yields a greater straggling of test results than the fishbone specimen and the welding process is hard to automate when using this type of sample. High metal consumption is another deficiency of cross-shaped specimens. The fishbone specimen is free of these defects and is more reliable in evaluating the proneness of the base and filler metals to the development of h : cracks in welding. There are 4 figures and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc.

Card 2/2

SHILOVA, Ye.I. (Moskva); MESHKOVA, O.V. (Moskva); NIKITAYEVA, O.G. (Moskva);
YELKINA, A.G. (Moskva)

Effect of grain size in D16 and D19 alloys on crack formation
and the strength of welded joints. Avtom. svar. 15 no.8:14-20
Ag '62. (MIRA 15:7)

(Nonferrous alloys—Metallography)
(Sheet metal—Welding)

KOZLOVSKAYA, V.A. (Moskva); MESHKOVA, O.V. (Moskva); YELKINA, A.G. (Moskva)

Effect of the composition of D20-type alloys on their properties
and weldability. Avtom. svar. 15 no.9:57-62 S '62.
(MIRA 15:9)

(Aluminum alloys—Welding)

ACCESSION NR: AP4019510

S/0075/64/019/003/0389/0392

AUTHOR: Dimitriyeva, V. N.; Meshkova, O. V.; Bezugly*y, V. D.

TITLE: Polarographic determination of dicyclohexylperhydroxydicarbonate

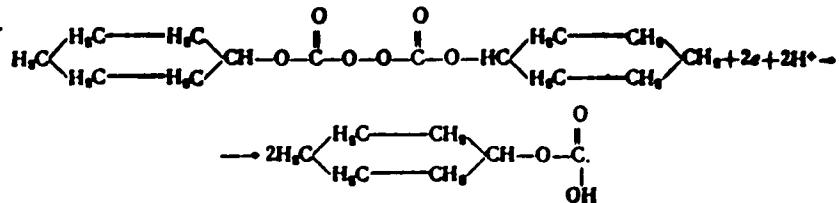
SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 3, 1964, 389-392

TOPIC TAGS: dicyclohexylperhydroxydicarbonate, polarography, determination, quantitative analysis, free radical polymerization initiator

ABSTRACT: The polarographic characteristics of dicyclohexylperhydroxydicarbonate (CPC), which is used as an initiator in free radical polymerization, have been established and a method was developed for the determination of CPC in polystyrene. The value of the diffusion current of CPC is a linear function of its concentration; the diffusion current constants have a constant value. The number of electrons involved in the electrode reaction is approximately two. The following is proposed as the equation showing the reduction of CPC:

Card 1/2

ACCESSION NR: AP4019510



The CPC content in polystyrene (ultimately dissolved in benzene-methanol solution of NH_4NO_3) can be determined quantitatively by comparison with a calibrated graph of polarographic currents. For CPC concentrations of more than 0.2% the method is accurate within the error of the polarographic method; for smaller concentrations, it is less accurate. Orig. art. has: 2 tables, 2 figures and 1 equation.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, scintillirayushchikh materialov, i osobu chistykh khimicheskikh veshchestv, Khar'kov (All-Union Scientific Research Institute of Monocrystals, Scintillating Materials and Chemical Substances of Special Purity)

SUBMITTED: 29 May 63
SUB CODE: OC, GC

DATE ACQ: 31 Mar 64
NO REF SOV: 008

ENCL: 00
OTHER: 006

Card: 2/2

DMITRIYEVA, V.N.; MESHKOVA, O.V.; BEZUGLYY, V.D.

Polarographic determination of dicyclohexylperoxydicarbonate.
Zhur. anal. khim. 19 no.3:389-392 '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov,
stsintilliyatsionnykh materialov i osobu chistykh khimicheskikh
veshchestv, Khar'kov.

POLUEKTOV, N.S.; OVCHAR, L.A.; MESHKOVA, S.B.

Modulation of the radiation of elements in a flame under the
effect of an electric field. Zhur. fiz. khim. 37 no.11:2582-
2585 N'63. (MIRA 17:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

ACCESSION NR: AP4035084

S/0032/64/000/005/0553/0554

AUTHORS: Poluektov, N. S.; Meshkova, S. B.; Nikonova, M. P.

TITLE: Determination of calcium admixtures in samples of hafnium and zirconium by flame photometry

SOURCE: Zavodskaya laboratoriya, no. 5, 1964, 553-554

TOPIC TAGS: hafnium, hafnium salt, zirconium, zirconium salt, calcium admixture determination, calcium zirconate formation, calcium hafnate formation, photometric radiation intensity, oxyquinoline radiation

A method was developed for counteracting the diminution of calcium radiation in flame photometry by adding oxyquinoline. Aliquots of 100-400 mg hydrous $ZrOCl_2$, $Zr(NO_3)_4$, $Zr(SO_4)_2$, or $HfOCl_2$ were dissolved in 3 ml of hot 6-normal HCl. They were then diluted to 10 ml, and equal portions were placed in three 10-ml test tubes. A standard solution of calcium salt was added to two of these (to bring the concentration of Ca to 0.25-0.50 and 2.5-5.0 micrograms/liter respectively). This was followed by adding 1 ml of a 20% oxyquinoline solution in acetic acid.

Card 1/2

ACCESSION NR: APL035084

After dilution to the 10-ml mark, the solutions were studied by flame photometry. It was found that for a portion of the reagents containing 0.5 micrograms of calcium per liter the method sensitivity was 0.005%. In another series of experiments calcium was determined in metallic zirconium and hafnium. Here the first step consisted of dissolving 50 mg of the metal in 0.5 ml HF for Hf and in 1.0 ml HF for Zr (in the presence of 1 ml of a SrCl₂ solution). After evaporation, 1 ml of 6-normal HCl and 100 mg HBO₃ were added, and the mixture was heated until its dissolution was completed. The subsequent procedure was similar to the one described above. By this method it was possible to determine calcium in zirconium foil, in solid and powdered zirconium, and in powdered hafnium. The sensitivity of the method was again 0.005%. Orig. art. has: 2 tables and 2 charts.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR, laboratorii v Odesse (Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian SSR, Odessa Laboratory)

SUBMITTED: 00

DATE ACQ: 20May64

ENCL: 00

SUB CODE: CH

NO REF Sov: 002

OTHER: 002

Card 2/2

L L7052-65 EPA(s)-2/EWT(m)/EWP(t)/EWP(b) Ft-7 IJP(c) JD/JG

ACCESSION NR: AP5007541

S/0368/65/002/001/0021 0025
31
29
BAUTHOR: Meshkova, S. B.; Poluyektor, N. S.

TITLE: Change in the atomic absorption of alkali metals in a flame upon shift of the ionization equilibrium under the influence of an external electric field

SCURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 1, 1965, 21-25.

TOPIC TAGS: atomic absorption, alkali metal, flame spectroscopy, ionization, electric field effect

ABSTRACT: In view of the fact that atomic emission and absorption of alkali metals in flames depend on the flame temperature, the authors investigated the influence of application of an electric field on the ionization in various portions of the flame, by measuring the atomic absorption of light, the magnitude of which is connected with the concentration of the metal atoms in the flame and which does not depend on the temperature. A diagram of the set-up is shown in Fig. 1 of the Enclosure. The apparatus used to measure the absorption of light in the flame was similar to that used by one of the authors in atomic-absorption spectral analysis (Poluyektor, Zav. lab. v. 27, 830, 1961). The results have established that if a

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L17052-65

ACCESSION NR: AP5007541

constant or alternating electric field is applied to graphite electrodes in a flame, the absorption of light by the alkali-metal atoms is changed in a manner similar to the change in the initial intensity. The weakening of atomic absorption of K, Rb, and Cs near the cathode was measured both along the width of the flame (between the electrodes) and along its height (along the electrode and above it). The observed effect is found to be connected with a decrease in the partial pressure of the metal atoms in the gas flame, due to the shift of the ionization equilibrium towards higher values of ionization. Orig. art. has: 5 figures.

ASSOCIATION: None

SUBMITTED: 18Jul64

ENCL: 01

SUB CODE: OPTC

NR REF Sov: 005

OTHER: 001

Card 2/3

L 47051-65

ACCESSION NR: AP5007542

ASSOCIATION: None

SUBMITTED: 22Jul64

ENCL: 00

SUB CODE: OP,IC

NR REF Sov: 005

OTHER: 003

am/
Card 3/3

POLYUKTOV, N.S. MULIKOVA, S.P.

Paroleerit komplekseid selleks saavutatud vahendeid, mida
Tihur, neorig. nimel, L. mõisteti 1992. a. 10. veebruaril.

... Ins. tulevabateks ja teiste vahendeid mõistetud vahendeid
lateralisti vahendusega.

MESHKOVA, T.M.

New variety of Cyclops (*Cyclops strenuus sevani var.n.*) from Lake Sevan. Izv. Akad. Nauk. Arm. SSR. Mat. nauki no. 10:19-30 '47. (MLRA 9:8)

1. Sevanskaya Gidrobiologicheskaya stantsiya Akademii nauk Armyanskoy SSR.

(Sevan, Lake--Copepoda)

MESHKOVA, T.M.

Diaptomus anahitae sp.nov., a new copepod species in Armenia. Dokl.
AN Arm. SSR 9 no.1:45-48 '48. (MZRA 9:10)

1. Sevanskaya Gidrobiologicheskaya Stantsiya Akademii nauk Arzjanskoy
SSR, Sevan. Predstavleno V.O. Gulikanyanom.
(Sevan region--Copepoda)

MESHKOVA, T.M.

Meshkova, T.M. "voprosu o cistemacheskem sostave i raspredelenii kolovratok b
ozere Sevan. Trydy Sevanskoy gidrobiol. stantsii, t.I, 1948, c.75-86.—Pezyme na
arm. yaz.—Bibliogr: 21 Nazv.
Letopis' Zhurnal'nykh Statey, 4, Moskva, 1949 (2602)

MISHKOVA, T.M.

Zooplankton of Lake Sevan in years of complete freeze-over (1949-
-1950). Trudy Sevan.gidrebiel.sta. 12:147-148 '51. (MLIA 9:8)
(Sevan, Lake--Zooplankton)

VERSHKOVA, T.M.

Zooplankton of Lake Sevan (biology and productivity). Trudy Sevan.
gidrobiol.sta. 13:5-170 '58. (MLRA 9:8)
(Sevan, Lake--Zooplankton)

MESHKOVA, T.M.

New locations of *Hemidiaptomus tarnogradskii* Rylow in the Caucasus.
Izv.AM Arm.SSR.Biol.i sel'khoz.nauki 7 no.2:107-108 '54.(MLRA 9:8)

1. Sevanskaya gidrobiologicheskaya stantsiya Akademii nauk
Armyanskoy SSR.
(Caucasus--Copepoda)

MESHKOVA, T.M.

Work of the Sevan Hydrobiological Station on the biological productivity of Lake Sevan. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki 7 no.7:3-18 Jl '54. (MLRA 9:8)

1. Sevanskaya gidrobiologicheskaya stantsiya AN Arm. SSR.
(Sevan, Lake--Fresh-water biology)

MESHKOVA, T.M.

Qualitative and quantitative composition of zooplankton in Arpalich
Lake. Trudy Sevan.gidrogiol.sta. 14:209-216 '55. (MLRA 9:8)
(Araplich Lake--Zooplankton)

~~NESHKOVA, T.M.~~

Mass cultivation of *Daphnia magna*. Trudy Sevan. gidrobiol. sta.
15:109-135 '57. (MLRA 10:8)
(Water fleas)

MESHKOVA, T.M., doktor biol. nauk.

Fresh-water shrimp of Lake Sevan and its "Passengers." Priroda 47
no.12:114-115 D '58. (MIRA 11:12)

1. Sevanskaya gidrobiologicheskaya stantsiya AN Armyanskoy SSR.
(Sevan, Lake--Amphipoda) (Sevan, Lake--Infusoria)

707/26-52-12-31/44

AUTHOR: Meshkova, T.M., Doctor of Biological Sciences

TITLE: The Sevanian *Gammarus lacustris* Sars and its "Passengers"
(Sevanskiy bokoplav i yego "passazhiry")

PERIODICAL: Priroda, 1958, Nr 12, pp 114 - 115 (USSR)

ABSTRACT: The small crustacean *Gammarus lacustris* Sars, found in Lake Sevan up to a depth of 15 m and fed upon by trout, was found to carry about 10 species of individual and colonial suctorial and ciliate infusoria (Figure 1). These infusoria are distributed on various body parts of the sidewise-walking crustacean, the same species of infusoria are invariably on the same body parts. Up to 200 colonial and 500 individual infusoria of 25 to 70 micron length and 15 to 50 micron width live on a 12 to 12-mm-long *Gammarus*. The 10 species are: *Dendrocometes paradoxus* St., *Spirochona gemripara* Stein, *Lagenophrys ampulla* Stein, *Intransstylum asellicola* Zahl, *Zoothamnium diplecatum* Zahl, *Vorticella* sp., *Opercularia protecta* Penard, *Mistylis lacustris* Imhoff, *Lagenophrys labiata*

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The Sevanian *Gammarus lacustris* Cars and its "Passengers" SCV/26-58-12-31/44

Stokes, and Carchesium sp. If the host crustacean molts or dies, the infusoria leave their sites for a new host. There is 1 set of diagrams.

ASSOCIATION: Sevanskaya hidrobiologicheskaya stantsiya AN Armyanskoy SSR
(The Sevan Hydrobiological Station of the AS of the Armenian SSR)

Card 2/2

Among the titles and authors of papers and other expected participants at the 15th International Congress of Limnology in Madison, Wisconsin, L. 30-25 Aus. 52, are the following:

- USSR**
- GDEVSKAYA, E. S., Kaliningrad College of Fishery,
Kaliningrad - "The role of rich aquatic plants
in trophic cycles of fresh water bodies"
- GOREBENOV, K. V., Astrakhan State University,
Astrakhan - "The role of cellulose bacteria
in biological productivity of water bodies"
- IVLEV, V. O., Sevastopol Biological Station,
Sevastopol, Biological Station
- KOLODII, P. V., Kursk State University - "The
transformation of energy on the highest trophic
levels of a production process" and "Properties of fish
production". (See paper, Session 11)
- KORNEV, Mihail Iosifovich, Java, Laboratory of Forestry -
"On the connection of flooding down of young
water bodies on different stages of their
historical development".
- KROGOLIS, P. V., Kursk Institute of Marine Fishery and Oceanography -
"On the connection of flooding down of young
fish of red salmon with the condition in a
lake".
- KRICHINS, Terentiy Nudayevich, Khabarovsk
Department, Pacific Institute of Marine Fishery
and Oceanography - "The influence of a decrease in
the elevation of red salmon production on the
phosphate regime of spawning areas".
- KRETSOV, Sergey Ivanovich, Institute of Micro-
biology, Academy of Sciences USSR - "The role
of microorganisms in the destruction of organic
substances in a water body".
- KRUMBEIN, Walter, Zoological Institute, Academy
of Sciences USSR - "The evolution of biological
processes, results and limitations of sedimentation
microbiological". (Secretary Session 10)
- KUDRYAVTSEVA, Galina, Dr., Biological Station,
Saratov Armenian SSR - "Has accepted invitation
but has not submitted paper".
- MASLAKOV, V. Ya., Zoological Institute, Academy
of Sciences USSR - "On the evolution of biological
processes (microfauna) in connection with the
conditions of existence".
- MASLOPOV, I. N., Laboratory of Limnology, Academy
of Sciences USSR - "On the main century's and
directions of hydrobiology in the Soviet Union".
- MORINA, A. G., Zoological Institute, Academy of
Sciences USSR - "Microbiology".
- MOSKOVICH, DO. L. L., Institute of Geomancy, Academy
of Sciences USSR, and GLAZOV, Grigory I.,
Bilbaite Department of the Academy of Sciences
USSR - "The Lake Baikal".
- MUSORY, Nikolai, Zoiversity, Institute of Biology
of Water Reservoirs, Academy of Sciences USSR -
"Ecology of the phytoplankton of Lake Baikal in
connection with the distribution of the rarest of
the littoral zone of the lake of high water".
- NIKONOVICH, G. M., Limnological Institute, Siberian
Department of the Academy of Sciences USSR -
"The ice regime of the Baykal Lake".
- PRIGAROV, B. S., Biological Faculty, Moscow
University, Moscow - "Influence of annual
concentrations of pollutants on water bodies
organism", and "On the question of the
influence of sewage on water bodies".
- SHCHERBYNA, K. K., Limnological Institute, Siberian
Department, Academy of Sciences USSR - "Turn-
over of the organic matter and some biogenic
elements in the Baykal Lake".
- TAMKOVSKAYA, Aleksandr, Moscow
Academy of Sciences USSR, Zoological Institute,
Mountain water bodies of Middle Asia".
- ZHADIK, V. I., Zoological Institute, Academy of
Sciences USSR - "Migration of the radioactive
phosphorus at parasitism a water body".
- ZHURAVLEV, P. A., Dniepropetrovsk Scientific Institute
of Hydrobiology of the State University, Ukrainian
SSR - "Facilitation of clams food organisms
from the fauna of estuary complex (or the
'Caspian relief type') in water reservoirs of
the Dniester and the Crimea".

MESHKOVA, T.M.

Contemporary state of plankton in Lake Sevan in connection with its
draining. Trudy Sevan. hidrobiol. sta. 16:15-88 '62. (MIRA 16:15-
(Sevan, Lake--Plankton)

TSULADZE, L.Ye., etv. red.; NOVAKH, A.A., prof., red.;
KALZINKE, G.M., prof., red.; VIL'GASOV, R.A., prof.,
red.; LEBERKVA, I.M., doktor biol. nauk, red.;
TSKHOMLLISHVILI, N.I., kand. biol. nauk, red.

[Transactions of the First Scientific Conference dedicated to the Study and Use for Fisheries of the inland Bodies of Water of Georgia. Trudy Nauchnogo i znanicheskogo posvyashchennoye izucheniiu i rybokhozyastvennomu ispol'zovaniyu vnutrennikh vodoyey v Gruzii, 1st, batum, 1963. . . Direktor Nauchno-issledovatel'skoy rybokhozyastvennoy stantsii Gruzii (for T.Suladze).

(MIA 10.7)

1. Nauchnye i rekomendativnye, posvyashchennoye izucheniyu i rybokhozyastvennomu ispol'zovaniyu vnutrennikh vodoyey v Gruzii, 1st, batum, 1963. . . Direktor Nauchno-issledovatel'skoy rybokhozyastvennoy stantsii Gruzii (for T.Suladze).

MESHKOVA, T.M.

Monomolecular film from aliphatic alcohols used as an evaporation depressor and its effect on water insects. Izv. AN Arm. SSR. Biol. nauki 18 no.11:48-58 N '65. (MIRA 19:1)

1. Sevanskaya hidrobiologicheskaya stantsiya AN Armyanskoy SSR.
Submitted June 30, 1965.

SAVKINA, Z.P.; MESHKOVA, T.P.

An experiment in shelterbelt planting and its influence on
microclimate in the forest tundra. Rast.Krain.Sev.SSSR i
ee osv. no.1:81-92 '56. (MLRA 10:2)

1. Nauchno-issledovatel'skiy institut polyarnogo zemledeliya,
zhivotnovodstva i promyshlovogo khozyaystva.
(Russia, Northern--Windbreaks, shelterbelts, etc.)
(Forest influences)